



Fertilizer Regulations and Water Quality: Theory and Practice

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Source URL: <http://extension.umass.edu/turf/nutrient-management>

Best Practices for Managing Nutrients in a Turf System

Developing and implementing a soil and nutrient management program based on best management practices is critical to the proper management of turf with environmental protection, natural resource preservation, and economic viability as priorities. In striving to achieve a level of management that reflects sound stewardship of the land, turf and landscape professionals are advised to:

- Analyze the existing condition and fertility of the soil, and provide for physical, chemical and biological attributes conducive to excellent plant growth, efficient uptake of nutrients by plants and maximum retention of available nutrients in the system.
- Carefully consider the nutritional requirements of the turf based on soil fertility, expected quality of the turf, use of the turf, suitability of the growing environment, grass species and varieties present, available management resources and other variables.
- Protect against adverse environmental impact to water, soil and other precious natural resources from off-site movement of nutrients due to factors such as misapplication, runoff, erosion and leaching.
- Be informed and judicious regarding additions of nutrients into the turf system. Pay particular attention to proper timing, application rate, material selection, and placement, with the intention of meeting expectations for turf function and aesthetics while simultaneously minimizing the potential for adverse environmental impact. Reduce nutrient applications to the lowest possible level. Account for all nutrient inputs into the system.
- Use excellent and appropriate cultural practices as the foundation of an integrated system of management.

Nutrient management must be concerned not only with protection and enhancement of natural resources, but also with sound agronomic practices that maximize the use and function of the turf. The following resources are useful for developing and implementing integrated, environmentally responsible management plans for any type of turf management program.

Elements of a Nutrient Management Plan for Turf provides the framework for the development of an effective nutrient management plan (NMP): <http://bit.ly/17ccKvN>

Best Management Practices for Soil & Nutrient Management in Turf Systems explains the individual components of a NMP: <http://bit.ly/1zIC5li>

Lawn and Landscape Turf Best Management Practices presents the range of best practices in an integrated systems approach to management: <http://bit.ly/1zvyV5F>

Nutrient and Fertilizer Regulations

Massachusetts

Chapter 262 of the Acts of 2012 authorized the enactment of new statewide nutrient management regulations by the Massachusetts Department of Agriculture (MDAR). The text of the enabling legislation can be found at: <http://1.usa.gov/1g0hRjx>

In response to the enabling legislation, MDAR developed and wrote regulation *330 CMR 31.00: Plant Nutrient Application Requirements for Agricultural Land and Land Not Used for Agricultural Purposes*. The regulation gives MDAR state-wide authority to regulate and enforce the registration and application of plant nutrients including, but not limited to, fertilizer, manure and micronutrients. The Cape Cod Commission, Martha's Vineyard Commission, and Nantucket Commission were granted the option to adopt their own ordinances in regard to nutrients and fertilizers.

State-Wide

- **Massachusetts state-wide regulation (330 CMR 31.00):** Proposed regulation was released and public comment was taken from February 2014 through July 4, 2014. The proposed regulation as developed by MDAR: <http://1.usa.gov/1g0i0DE>
 - **As of the date of this document neither the final regulation nor a projected effective date has been released.**
 - For information contact the Massachusetts Department of Agricultural Resources at (617) 626-1700.

Cape Cod

- **Cape Cod Commission:** Model bylaw has been developed; adoption is at the discretion of individual communities in the district.
Cape Cod Commission model bylaw: <http://bit.ly/1f7aF70>
For more information: <http://www.capecodcommission.org> or (508) 362-3828.

- The following **Cape Cod municipalities**, under the purview of the Cape Cod Commission, have either passed ordinances regarding the application of fertilizer or had ordinances ‘grandfathered’ in. For more information on the details and status of these regulations contact the appropriate entity in each community.
 - Barnstable: Town Council
 - Brewster: Town Administrator and Board of Selectmen
 - Chatham: Board of Health
 - Eastham: Conservation Commission and Board of Health
 - Falmouth: Natural Resources. Regulation: <http://ecode360.com/27443489>
 - Mashpee: Board of Selectmen. Regulation: <http://bit.ly/1z7KNvP>
 - Orleans: Town Administrator. Regulation: <http://ecode360.com/28460573>
 - Provincetown: Board of Health. Regulation: <http://bit.ly/1vEAQdr>

The Islands

- **Martha’s Vineyard Commission:** A consistent regulation has been approved by each of the island municipalities as Board of Health regulations.
Martha’s Vineyard Fertilizer Initiative, including town regulation documents:
<http://www.mvboh.org/fertilizer.html>
- **Nantucket Board of Health:** Regulation in effect prior to enactment of statewide statute. Regulations require training and licensing of professional fertilizer applicators who must abide by the *Best Management Practices for Landscape Fertilizer Use on Nantucket Island* manual.
 - Nantucket regulation (Board of Health Rules and Regulations 75.00, Content and Application of Fertilizer on Nantucket): <http://bit.ly/1ea42zZ>
 - *Best Management Practices for Landscape Fertilizer Use on Nantucket Island* manual: <http://bit.ly/1pb8dLr>

Other Northeastern US States

Several states in the northeastern United States have enacted nutrient and fertilizer regulations. These include **Connecticut, Maine, Maryland, New Hampshire, New Jersey, New York and Vermont**. A detailed summary of each of those regulations can be found in the *Regional Clean Water Guidelines for the Fertilization of Urban Turf* produced by the New England Interstate Water Pollution Control Commission.

<http://www.neiwpsc.org/>

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